ABSTRACT OF THE DISCLOSURE

In a method of treating alloyed carbon-containing iron melts for the production of steel, whereby a carbon-containing iron melt is subjected in a metallurgical vessel to a decarburization by addition of oxygen and a part of the metallic alloying elements is slagged, whereby the metal melt is withdrawn from the metallurgical vessel while the unreduced slag remains in the metallurgical vessel and then the metallurgical vessel is filled with a new charge or iron melt and subjected anew to a decarburization process so that the loss of expensive metallic alloying elements as a result of decarburization is small because of the slagging. This is achieved in that without intervening removal of the slag, the slag is increasingly, saturated with metal oxides which derive from the melt and such that with increasing saturation the slagging of the metallic alloying elements is increasingly counteracted.